

**REMARKS/ARGUMENTS**

Applicants thank Examiner for her helpful comments and suggestions for getting the application in condition for allowance.

Entry of Amendment D, and review and reconsideration of the Office Action of May 9, 2003 is respectfully requested in view of the amendments and the following remarks.

Claims 29-55 are currently rejected in the application.

Claims 29-55 are currently pending in the application.

Claims 34, 35 and 38 have been amended to correct typographical errors.

**OUTLINE OF REMARKS**

- I. Office Action of May 9, 2003 begins on page 11 of this paper
- II. Applicants' Telephone Interview Summary begins on page 11 of this paper
- III. Two-Component Flavoring begins on page 12 of this paper
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- VIII. Preininger et al. begins on page 16 of this paper

**I. Office Action of May 9, 2003**

The Examiner has rejected Claims 29-55 as being anticipated by Kubickova et al. and Preininger et al. and also being obvious over the combination of Kubickova et al. and Preininger et al. See pages 2-4 of the May 9, 2003 Office Action for Examiner's reasoning.

**II. Applicant's Summary of the Telephone Interview of August 29, 2003**

Applicants' representative began the Interview with a quick summary of the file history of the application. Then, Applicants' representative briefly reviewed the substance of the current set of claims. Next, Applicants' representative reviewed the Office Action of May 9, 2003, which cited two references, Kubickova and Preininger, as rendering the current invention both anticipated and obvious.

Applicants' representative then discussed various reasons for distinguishing the current set of claims from the prior art cited in the Office Action. Applicants' representative noted that neither prior art reference teaches a two-component artificial cheese flavorant (see page 12 of this Amendment D for more information). Further, Applicants' representative noted that the prior art does not teach a flavorant excluding non-essential ingredients that do not contribute to the cheese flavor, such as fillers, textures, etc. (see page 12 of this Amendment D for more information). Also, Applicants' representative noted that the elimination of such non-essential ingredients provided new and unexpected results, for example: a longer shelf life and a

commercial advantage (see page 13 of this Amendment D for more information).

The Examiner requested Applicants' representative to include the above-noted distinctions between the prior art and the current invention in Applicants' response to the Office Action. Examiner also requested Applicants to include in the Office Action response support in the specification for the distinctions that were made by Applicants' representative during the Interview.

The Examiner also suggested, as an alternative to Applicants' arguments, the possibility of amending the claims. Applicants' representative decided only to include arguments and distinctions in the present Office Action Response. Should these arguments not be entirely persuasive, Examiner agreed to provide "Allowable Subject Matter" in her subsequent Office Action. Then, Applicants will decide which amendments, if any, to make to the claims.

### **III. Two-Component Flavoring**

Applicants respectfully submit that neither of the two prior art references teaches the "two component" cheese flavoring that is currently claimed in the present application.

Therefore, Applicants respectfully request that the anticipation and obviousness rejections of Kubickova and Preininger be removed.

### **IV. Essential Ingredients**

Applicants submit that the prior art does not teach a system for producing a two-component flavoring comprising taste active and odor active substances and that excludes other components that do not contribute to the cheese flavor (fillers, textures, etc).

The present invention makes it possible, using a simple checklist of only essential components, to reliably compose a wide variety of cheese flavors. Non-essential components are eliminated from this list. As indicated in the specification, "The inventive cheese flavorings surprisingly enable the preparation of all flavors typical of a variety without being bound to constituents which do not contribute to the taste sensation 'cheese'." (at the top of page 16). Neither prior art reference teaches how to prepare a cheese flavoring for any cheese variety without constituents that do not contribute to the taste sensation "cheese".

Therefore, Applicants respectfully request that the anticipation and obviousness rejections of Kubickova and Preininger be removed.

#### **V. New, Unexpected Results**

The claims, in their current form, fully distinguish between the present invention and natural cheese. Applicants submit that, according to In re Benjamin D. White (as cited by the Examiner on page 3 of her Office Action), the two-component cheese flavorant of the present invention is patentable.

According to In re Benjamin D. White, merely eliminating ingredients from food does not amount to an invention. Further, the case holds that, "(t)here is nothing patentable unless the applicant by a proper showing further establishes a coaction or cooperative relationship between the selected ingredients which produces a new, unexpected, and useful function." The present invention, through the elimination of non-essential constituents, has been able provide new, unexpected and useful functions. By eliminating the non-essential components of cheese flavoring, the

present invention has been able to produce at least two new, useful and unexpected results: a product with a longer shelf life and a product with a commercial advantage.

As discussed on page 15, line 13 of the specification, the sterilized products that can be made from composition and processes of the present invention have a longer shelf life. Examples of some of the sterilized products that can be made and that possess a longer shelf life are listed in Table 2, on page 14 of the specification.

As discussed on page 15, lines 26-27, the specification indicates that "no additives or fillers are required for the inventive cheese flavorings". The elimination of the superfluous additives and fillers will necessarily lower the cost of production. Commercial advantage will be gained by using the invention of the present application due to: reduced costs, reduced inventory purchasing, reduced vendor contact, reduced inventory control, a reduced volume of Material Safety Data Sheets (MSDS) to keep track of and comply with, reduced necessary storage capacity, reduced storage requirements (temperature, humidity) and reduced handling time during production.

Consequently, according to the holding of In re Benjamin D. White, the present invention is patentable as a result of these new, unexpected and useful functions provided by the elimination of non-essential ingredients and the careful selection of only essential ingredients.

Therefore, Applicants respectfully request that the anticipation and obviousness rejections of Kubickova and Preininger be removed.

#### **VI. Odor Active Values (OAV) and Taste Active Values (TAV)**

In the present invention, the essential ingredients are selected by determining the concentrations of each of the presently listed 14 categories of odor-active substances and taste-active substances in a particular cheese variety using analytical methods (specification, page 11, first paragraph). The substances which are important for cheese flavoring are selected by determining the so-called odor active values (OAV) and taste active values (TAV). All substances having OAVs and TAVs greater than one, obtained from the quotient of the respective concentration of a compound and the corresponding threshold value in a relevant matrix in water, are taken into account for quantitative matching with flavoristic methods. Based on the results of the analysis in each of the 14 categories, organoleptic substances are mixed in the determined amounts to produce a cheese flavor corresponding to the desired target cheese.

Using this system, cheddar and parmesan cheese flavorings were prepared in the specification.

It is noted, as pointed out by the Examiner, that the lower ranges of certain classes of components may be "0". The Examiner thus reads the claim as requiring not 14 ingredients, but only 10 ingredients.

In response, Applicants point out that the quantities of ingredients are selected based upon the analytical determination of the target cheese flavor to be reproduced. Thus, if the target cheese flavor contains any ingredients in groups 6, 9, 13 or 14, then the cheese flavoring produced in accordance with the present invention will contain an amount of such an ingredient. If the analysis of the target cheese flavor determines that there is no ingredient in one or more of groups 6, 9, 13 or 14 in the target

cheese, then the cheese flavoring produced in accordance with the invention may also be free of these ingredients.

**VII. Kubickova et al.**

This reference does not teach a two-component cheese flavoring as claimed in the present invention.

Further, this prior art reference does not teach non-volatile, taste-active compounds. Non-volatile components are the second component in the two-component flavorant of the present invention. Because this reference lacks one of the components (the non-volatile component), this reference cannot anticipate or render obvious the two-component cheese flavoring of the present invention.

Further, the flavoring substances described are those typically used for soft cheese and they represent only a portion of those specified for the presently claimed cheese flavoring ingredient list.

Therefore, Applicants respectfully request that the anticipation and obviousness rejections of Kubickova be removed.

**VIII. Preininger et al.**

This reference does not teach a two-component cheese flavoring, as claimed in the present invention.

Further, this reference does not teach that cheese flavoring can be made using only essential components. Because this reference does not teach a two-component cheese flavoring and because it does not teach essential components, this reference cannot anticipate or render obvious the cheese flavoring of the present invention.

Further, the volatile flavoring substances described in this document represent only some of the substances mentioned in the present claims. This is also true of the non-volatile, taste-active substances. Peptides are, for example, not mentioned at all in Preininger.

As far as salts are concerned, only some examples in Preininger are mentioned for the production of model solutions. Preininger does not contain any reference to the quantities employed or the use thereof for ready-to-eat foods. It only relates to model solutions.

Moreover, the list of groups of substances (1 to 14) and the corresponding quantities mentioned are absolutely necessary for the production of the flavoring according to the present invention. These groups are not all mentioned in the above references. In addition, the various quantities mentioned in the references represent only a small portion of those mentioned in the present claims.

Consider for example the cheddar and parmesan cheese flavors produced in accordance with the present invention - the cited prior art does not teach a system for producing these or other flavors without inclusion of ingredients that are not essential for the flavor/taste sensation of the cheese variety.

Therefore, Applicants respectfully request that the anticipation and obviousness rejections of Preininger be removed.



U.S. Application No.: 09/871,059  
AMENDMENT D

Attorney Docket: 3968.024

Accordingly, withdrawal of the rejection and early issuance of the Notice of Allowance is respectfully requested.

Respectfully submitted,

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Dated: September 9, 2003

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CERTIFICATE OF MAILING AND AUTHORIZATION TO CHARGE

I hereby certify that the foregoing AMENDMENT D for U.S. Application No. 09/871,059 filed May 31, 2001, was deposited in first class U.S. mail, postage prepaid, addressed: Attn: Mail Stop \_\_\_\_\_ Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 on September 9, 2003.

The Commissioner is hereby authorized to charge any additional fees, which may be required at any time during the prosecution of this application without specific authorization, or credit any overpayment, to Deposit Account No. 16-0877.

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